

ABSTRACT OF THE DISCLOSURE

Guidance of a gliding vehicle is disclosed. A method of the invention allows the range of the glide phase of a gliding vehicle to be maximized, while satisfying final flight path angle and aimpoint requirements. The method controls the time-of-flight of the
5 gliding value to a desired value. The time-of-flight control can correct for winds, off-nominal launch conditions, and rocket motor variations, among other factors. Both time-of-flight control and range and cross-range maximization can be achieved by the inventive method, utilizing a compact closed-loop approach.